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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,555	10/09/2001	Jeffrey J. Walls	10008320-1	7156

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HEWLETT-PACKARD COMPANY  
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EXAMINER

MADAMBA, GLENFORD J

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/974,555	<b>Applicant(s)</b> WALLS ET AL.	
	<b>Examiner</b> Glenford Madamba	<b>Art Unit</b> 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The Information Disclosure Statement (IDS) filed December 9, 2001, has been received and considered by the examiner.

### ***Claim Objections***

1. The disclosure is objected to because the text on page 10, line 1 should be updated with the current status of the cited applications, such as the U.S. Patent Application Serial No., a filing date, U.S. Patent No., and the issue date. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 17-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter and is lacking utility. Claims 17-19 refer only to a "computer program" for configuring a plurality of networked computers to cooperate to collectively render a display, comprised by a code segment

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configured to control the reception, specification, and communication of the specified configurations to each of the plurality of slave computers.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1- 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Ludtke et al (hereinafter Ludtke). U.S. Patent 6,501,441.

3. Claim 1 declares a method for configuring a plurality of networked slave computers to cooperate to collectively render a display comprising: specifying, at a master computer, compatible operating configuration for each of the plurality of slave computers; and communicating, across the network, the specified configuration to each of the plurality of slave computers.

Ludtke discloses an identical method of displaying images on a multiple display configuration including a plurality of display devices (24-40) and a master

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device (22) [see Figure 2]. Ludtke further specifies in one of the embodiments for the invention that the management support and controls for the multiple display configuration are exposed to control devices on the serial bus network, *allowing the control devices to issue commands to the master device concerning the configuration of the multiple display configuration.* These commands allow the control device and the user, through the control device, to specify controls such as which display devices are to be used within the multiple display configuration, the configuration and orientation of the image on the multiple display configuration and other appropriate characteristics [Col 19, Lines 53-66].

The master device is responsible for partitioning the video stream into image sections, scaling the image sections, encoding the scaled image sections and transmitting the scaled and encoded image sections to the appropriate display devices within the multiple display configuration [Col 3, Lines 27-33]. The method further includes transmitting the encoded data stream to each appropriate display device [Col 24, Lines 27-28] over a high-speed serial interface [Col 23 Lines 56-58], such as an IEEE 1394 serial bus network [Col 23 Line 60].

In considering Claim 8, in addition to the reasons cited above for Claim 1, Ludtke points out that the configuration provided in Figure 2 is exemplary only and that it is apparent that an audio/video network could include many different combinations of components [Col 8, Lines 29-31]. It is inherent that the invention

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can therefore be applied to expanded versions of the network configuration illustrated, such as pluralities of the described network configuration. In fact, Ludtke teaches in the embodiment of his invention that a *parameter configuration\_ID* is used to specify which particular multiple display configuration is being configured, assuming the master device (22) supports more than one multiple display configuration [Col 20, Lines 41-43].

Claim 17 is also rejected for the same reasons provided as it differs only by its statutory category.

4. Claim 2 specifies the method of claim 1, wherein the step of communicating the specified configuration comprises communicating the specified configuration through a communication socket of each of the plurality of slave computers.

Ludtke discloses a multiple display configuration system comprising, in part, of a display communications circuit configured for receiving and transmitting data [Col 26, Lines 24-27].

Claims 9 and 19 are also rejected for the same reason cited above as they differ only by their statutory category.

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5. Claim 3 asserts the method of claim 1, wherein the step of communicating the specified configuration comprises saving at least one slave configuration file in a predetermined location on each of the plurality of slave computers.

In one of his claims for the invention [Col 25, Lines 40-46], Ludtke discloses a method that has as one of its steps, transmitting each scaled image section to each appropriate display device, wherein the step of transmitting each scaled image section includes combining data representing the scaled image section for an appropriate display device in a stream of data packets, *each including an address value corresponding to a memory location within the appropriate display device.*

Further, Ludtke discloses a method wherein a trigger packet, which includes a trigger bit, is sent and signals that storage of a current scaled image for display by the appropriate display device is complete [Col 25, Lines 65-67 & Col 26, Lines 1-2].

Claims 10 and 18 are also rejected in that they make the same assertion as Claim 3 and are differentiated only by their statutory category.

5. Claim 4 states the method of claim 3, wherein the step of saving at least one configuration file comprises saving the at least one slave configuration file using a predetermined filename.

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In considering Claims 4, it is inherent from the teachings of Ludtke that the transmittal of encoded data packets to an address corresponding to a memory location within each one of the display devices in the multiple display configuration would be contained in some standard file format (i.e., MPEG or DV file) with a predetermined filename as its identifier [Col 25, Lines 61-64].

Claim 11 is also rejected for the same reason provided as it differs only by its statutory category.

6. Claim 5 declares the method of claim 1, wherein the step of specifying, at a master computer, operating configurations further comprises the step of reading, by the master computer, a master configuration file that is stored in a predetermined location.

Claim 6 declares the method of claim 5, wherein the step of specifying, at a master computer, operating configurations further comprises the step of translating information from the master configuration file and saving the translated information into a plurality of slave configuration files.

In considering Claims 5 and 6, Ludtke specifies a multiple display configuration system comprised, in part, by:

a master device coupled to the plurality of display devices comprising:



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- i. a master communications circuit configured for receiving and transmitting data; and
- ii. a control circuit coupled to the master communications circuit for partitioning an image into a plurality of image sections each corresponding to one of the display devices and assigning each image section to a corresponding display device.

[Col 26, Lines 38-46].

Ludtke additionally points out as a preference that management support and controls for the multiple display configuration are exposed to control devices on the serial bus network, *allowing the control devices to issue commands to the master device concerning the configuration of the multiple display configuration* [Col 19, Lines 53-66]. As shown in Figure 3 for the reference (Ludtke), the master device has memory components (i.e., main memory, video memory, and mass storage) for storage of control commands/specifications received from control devices to which it is coupled.

The steps of capturing and scaling each image section are performed by a master device (22) on each appropriate image section [Col 24, Lines 38-39, Col 25 Lines 34-39] before each data stream is transmitted to the appropriate display device.

Claims 12, 13, and 15 are also rejected in that they make the same assertion as Claims 5 and/or Claim 6, and are differentiated only by their statutory category.

8. Claim 7 states the method of claim 5, wherein the step of specifying, at a master computer, operating configurations further comprises the step of translating information from the master configuration file and communicating the translated information to the plurality of slave computers.

Ludtke, in his preferred embodiment teaches that a *configure command* is utilized by a control device to initially set up a multiple display configuration and to change an existing multiple display configuration [Col 19 Lines 63-66]. The master device (22) issues the appropriate commands to each display device (24-40) to set each display device to the appropriate resolution before the master device (22) configures the display devices (24-40) for the multiple display configuration [Col 20, Lines 26-29]. A subsequent configuration command using the same identification value (parameter configuration\_ID) would cause a change to the specified multiple display configuration [Col 20, Lines 47-49].

Ludtke also teaches in an alternative embodiment that given an original data stream (video stream) the master device *decodes* the frame data, partitions the image data into each image section corresponding to each display device, scales the image data, *re-encodes* the scaled image data for each image section

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on separate isochronous streams and *transmits* the encoded and scaled image data for each image section on separate isochronous channels, one directed to each of the display devices, as appropriate. The display devices (24-40) then display the encoded and scaled image data at an appropriate time, as specified by the master device (22) [Col 22, Lines 42-53].

Claims 14 and 16 are also rejected in that they make the same assertion as Claim 7 and are differentiated only by their statutory category.

### ***Conclusion***

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Minoura et al, Patent No. 4991121, exhibits an image display system in which a plurality of magnetic recording/reproducing apparatus can be controlled via interfaces by a computer, and the computer is adapted to output specification data for specifying one or more magnetic recording/reproducing apparatus to be controlled as well as control data including data on the shift of one or more magnetic recording/reproducing heads of the apparatus to be specified.

Greaves et al, Patent No. 6195687, discloses a master-slave network control system and method of operation wherein the master node element

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has substantially absolute invasive control over functions and capabilities of slave node elements which are logged onto the network and wherein the master node can exercise latent control over slave node elements when not logged onto the network.

Sommer et al, Patent No. 6297785, discloses a method and circuit arrangement for independent operation of a plurality of visual display units (210-216) from one screen control unit (10), which can emit clock signals and a number of character-related or pixel-related video data signals corresponding to the line and column resolution of a two-dimensional rectangular raster image which is to be displayed on a visual display unit.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenford Madamba whose telephone number is 571-272-7989. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3932. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**ZARNI MAUNG**  
SUPERVISORY PATENT EXAMINER

Glenford Madamba  
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Art Unit 2151